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(54) DYNAMIC DESTINATION NAVIGATION SYSTEM

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(58) Field of Classification Search

(56) References Cited

U.S. PATENT DOCUMENTS

5,680,122	A *	10/1997	Mio G05D 1/02	46	
5.781.119	A *	7/1998	180/16 Yamashita G05D 1/0		
			180/1		
7,630,832			Kim et al. Saltsman		
(Continued)					

FOREIGN PATENT DOCUMENTS

GB 002473879 A 3/2011 WO WO 2009100701 A1 8/2009

OTHER PUBLICATIONS

K.S. Chang et al., "Experimentation with a vehicle platoon control system," Year: 1991, vol. 2, pp. 1117-1124.*

(Continued)

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(57) ABSTRACT

The claimed subject matter provides a method for navigating to dynamic destinations. The method includes associating a leader mobile device with a follower mobile device. The method also includes displaying, on the follower mobile device, a first path from a follower vehicle to a first location of a leader vehicle. The follower vehicle is associated with the follower mobile device. The leader vehicle is associated with the leader mobile device. The method further includes displaying, on the follower mobile device, a second path from the follower vehicle to a second location of the leader vehicle.

20 Claims, 10 Drawing Sheets

